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KNOWLEDGE

VOL 4 SEPTEMBER 2010

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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U.S. ARMY
ARMY STRONG.

THE BAND OF BROTHERS
& SISTERS

KNOWLEDGE
OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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U.S. ARMY COMBAT READINESS/SAFETY CENTER
ARMY SAFE IS ARMY STRONG
https://safety.army.mil

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please e-mail comments to **safe.knowledge@conus.army.mil**.

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Knowledge provides a forum for Soldiers, Leaders and safety professionals to share best practices and lessons learned and maintain safety awareness The views expressed in these articles are those of the author and do not necessarily reflect the official policy or position of the U.S Army, Department of Defense or the U.S. Government. Contents are specifically for accident prevention purposes only. Photos and artwork are representative and do not necessarily show the people or equipment discussed. Reference to commercial products does not imply Army endorsement. Unless otherwise stated, material in this magazine may be reprinted without permission; please credit the magazine and author.

DO YOU

Before I came to the U.S. Army Combat Readiness/Safety Center late last year, I thought I knew a lot about Soldiers and how they think and operate. But as I've traveled throughout our Army since then, I've come to realize there's always more to learn about the men and women we lead every day.

It's always a pleasure to visit a post and hear stories about Soldiers who are out there doing the right things every day and saving lives in the process. And that's one of the most important lessons I've received — most Soldiers want to do their best and do it safely. For example, I was recently in Germany giving a pre-deployment safety briefing and had the opportunity to spend some time with 10 different groups of Soldiers from the same unit. Both they and their leadership were talking the same things, including a top-five list of safety concerns for the upcoming rotation to theater. Every Soldier I spoke with understood these hazards and could explain them to me clearly and without hesitation. These Soldiers clearly "got it" that safety can mean the difference between a successful deployment and one tragically marred by accidental fatalities.

There are always a few Soldiers out there, however, who just don't get it. I'm talking about those Soldiers who, despite knowing what to do, continue to willfully disregard the standard both on and off duty, whether it's speeding, not wearing seat belts, restraint systems or personal protective equipment, drinking and driving, and the list goes on. The price for this reckless behavior is often high, as several of this summer's accidents have shown. We experienced an especially tough couple of weeks when three Soldiers died in privately

“OPENING THE FLOW of communication **DOESN’T** have to **BE HARD**, and, fortunately, there are **TOOLS** out there to **HELP** you reach your **SOLDIERS.”**

GET IT?

owned vehicle rollovers because they weren’t buckled up, even as their belted passengers escaped serious injury. Around the same time, we lost another Soldier — also unrestrained — in an on-duty HMMWV rollover.

No matter how many of these reports we receive, I’m always surprised at the disregard for safety some Soldiers and even Leaders display. How many times have you been off post, oftentimes just right outside the gate, and seen Soldiers without their seat belts or helmets or behaving in other undisciplined ways? And how often have you seen mission-bound vehicle crews skip pre-combat checks, inspections and rehearsals in the name of saving a little time? I’ve seen it a lot, at every installation I’ve been assigned to and every theater I’ve been in. But the most important question is how many times have you done something about it?

Obviously, we’ve got to get at the heart of these issues — and that’s where we, as Leaders, enter the picture. It’s our job to pay attention to the details, and when we see Soldiers disregarding the standard, it’s our responsibility to correct them. It’s our duty to ask them why they’re being negligent and help them see the potentially deadly consequences of their actions. This means talking and listening by both you and your Soldiers, not just you barking orders and them agreeing to follow. The same is true for the random Soldiers you might correct for unsafe behavior on any given day. Take their name and unit information, and follow up with them to let them know you care about their well-being. You never know what kind of leadership they have in their formations, so don’t underestimate the positive influence you can have today.

Opening the flow of communication doesn’t have to be hard, and, fortunately, there are tools out there to help you reach your Soldiers. One of these is the BOSS Safety Factor. The USACR/Safety Center and BOSS program have updated the original product to be even better for the upcoming year. The updated kit, which includes a safety presentation that features video clips from some of today’s top comedians taking a humorous look at the hazards of Army life, will be formally launched Oct. 1 at https://safety.army.mil. Take a look and let us know what you think — your feedback helps us provide you the tools you need.

Finally, take some time to recognize the Soldiers in your ranks who are doing a great job for safety. Through the end of this month, GEICO will accept nominations for its Military Service Awards Program, which highlights the contributions of service members in accident prevention. One enlisted member from each of the service branches will be honored, so make sure your safety warriors have a chance at the prize.

As the seasons change and we move into the new fiscal year, make safety a priority for you and your Soldiers. Take corrective action when necessary, and always let them know you care. Thanks for what you do every day, and remember Army Safe is Army Strong! «

Mike Eyer

MICHAEL EYER
Command Sergeant Major
U.S. Army Combat
Readiness/Safety Center

THE BLIND SI

BOB VAN ELSBERG
Strategic Communication Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

A gray-brown shape swiftly paralleled the Ford Explorer, flashing between tree shadows and shafts of moonlight streaking between the limbs. "What is it," thought Spc. Brock E. Johnson as he quickly glanced left and then focused on the road again. He'd never driven this road. This was something he hadn't anticipated or planned for.

There was a car following him, its headlights bathing the darkness around his SUV. Whatever was on his left was still moving alongside, just off the side of the road. "What will it do," Johnson wondered as the half-visible phantom plunged through the darkness to his left.

Suddenly, two flashes — bright and quick as gunshots — startled Johnson, who just caught them in the corner of his eye. They were reflections from a deer's eyes as it turned and ran at him. Instinctively, he jerked the steering wheel to the right, but he couldn't get away. With a thud, the deer smashed into the left-front fender. The Explorer jolted toward the right, its headlights illuminating the trees off the side of the road.

The impact stunned Johnson as the SUV veered onto the right-hand shoulder, rubber tires searching for — but not finding — traction on the rain-soaked grass. The ground abruptly dropped away and the Explorer plunged into a ditch. The impact jarred the Explorer and, much more importantly, Johnson, who was helpless behind the wheel. The Ford's front end suddenly went up into the air, rebounding from the ditch's bottom.

Johnson's seat belt — particularly his shoulder strap — bit deeply into his skin, locking him in place against the seat as the air bags inflated around him. Then a tremendous crash jarred the Explorer as its right-front bumper slammed into a tree. The violent impact tore away the Explorer's right-front tire and fender. Still moving, but unstable from its collision with the tree, the Explorer began to overturn. Stunned, Johnson felt the vehicle rolling over, followed by sounds of metal grinding against the ground and windows shattering.

The Ford continued rolling. The roof crushed down upon the top of Johnson's seat, damaging two discs in his neck and dislocating his left shoulder as it forced his head and chest down and to the right. Trapped beneath the collapsing roof and the steering wheel jammed down against his legs, he sprawled awkwardly across the center console. With one final jolt, the Explorer's mangled hulk came to rest on its wheels — at least the three that still remained. The woods again became silent, both in reality and in Johnson's mind. He was now unconscious.

The car that had been following Johnson pulled to the side of the road. The driver, an off-duty nurse, hurried to the wrecked Explorer. The crushed

DID YOU KNOW?

According to the Insurance Institute for Highway Safety, there are an estimated 1.5 million deer-vehicle collisions annually in the United States, causing more than 150 fatalities and $1.1 billion in property damage. These collisions become more frequent from October through December due to the deer migration and mating season.

roof had jammed the driver's door and she could not reach the injured Soldier to help him. She quickly called 911.

As the darkness began to fade from Johnson's mind, he heard the nurse telling him to remain calm. She asked if he had Family she could call. Minutes passed and then he heard not only her voice, but also those of the emergency responders moving around his vehicle. His mind finally began to clear. With relief, he realized he was still alive; he had survived this unexpected assault. His mind went to his Family.

"When I woke up, I was thinking about my wife and my kids," Johnson said. "I thanked the Lord I was alive and I thought about my Family and what life would be like for them if I didn't make it out of this crash."

The nurse called Johnson's wife, who hurried the eight miles from their house to the accident site. By the time she got there, rescuers had already cut off the Explorer's doors to get to her husband. She was shocked when she saw the damaged vehicle and grateful her husband was still alive.

She watched as a fireman broke the window out of the Explorer's rear hatch and then crawled inside. As the fireman kicked against the inside of the hatch, other firemen pried it from the outside to get it open. Handling him carefully, the fireman removed Johnson and took him to a local hospital for treatment. Because he'd been unconscious, doctors performed CT scans to see if there were any brain injuries. Fortunately, there weren't. But it could have been a whole different picture if he hadn't been wearing his seat belt. In the moment they were needed, the Explorer's safety features — front and side window curtain air bags and seat belts — did what they were designed to do.

"You think about paying all this extra money for these safety features, but they really do work," Johnson said. "I did have my seat belt on. It was still intact and connected."

In fact, he had to disconnect his seat belt so the fireman could remove him from his seat. But at least he was still in the seat. He'd avoided being slammed head-first into the windshield or ejected through a window as the vehicle rolled. And while the Explorer was totaled, he wasn't — which is the whole reason why passive safety features like seat belts and air bags were designed.

"I thank God I made it through and get to live a little longer and watch my kids grow up," he said. "I want to keep living life to the fullest."

From that experience, he speaks about the value of wearing seat belts — not only to the Soldiers involved — but to their Families should an

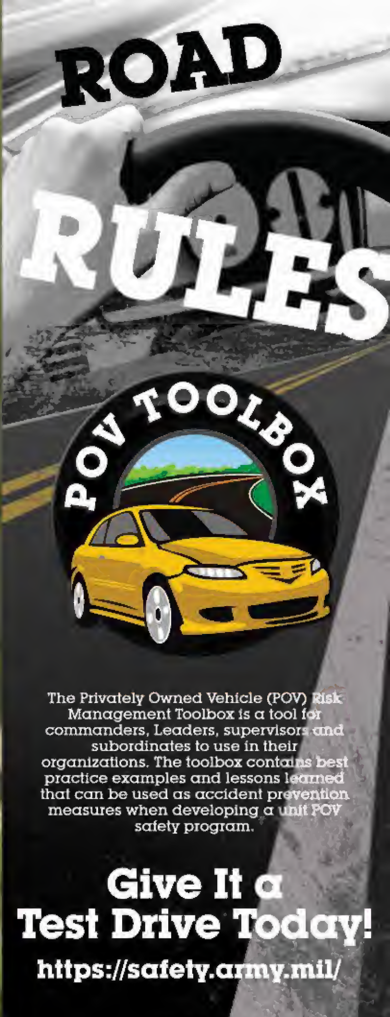
TIPS FOR AVOIDING DEER STRIKES

The following safety tips are provided courtesy of State Farm Insurance:

- **Be aware of posted deer-crossing signs. These signs are placed in known active deer-crossing areas.**
- **Be aware that deer are most active during the evening between 6 and 9 p.m. (Also, be alert for deer in the early morning hours between 4 and 7 a.m.)**
- **At night, use high-beam headlamps as much as possible to illuminate the sides of the road where deer can linger.**
- **Be aware that deer often move in packs. If you see one deer, there is a good chance several more are just a few yards behind.**
- **Do not rely on car-mounted "deer whistles." Studies have shown deer are not affected by this deterrence method.**
- **If a collision with a deer seems inevitable, it may be best not to swerve. The risk of personal injury is greatly increased by swerving, which can place you in the path of oncoming vehicles or cause you to lose control.**

accident happen on the road.

"The most important thing is that you don't want your Family to go through that hard time of losing you over something as little as clicking your seat belt," he said. "You've got to think about all the different factors involved in getting you from one point to another safely. I've heard people say, 'I don't wear a seat belt because it wrinkles my clothes.' … I didn't always wear my seat belt until I came into the Army because I didn't know the whole meaning behind it. Now I do. My wife, my kids and I — we don't get into any car without buckling our seat belts." «



The Privately Owned Vehicle (POV) Risk Management Toolbox is a tool for commanders, Leaders, supervisors and subordinates to use in their organizations. The toolbox contains best practice examples and lessons learned that can be used as accident prevention measures when developing a unit POV safety program.

Give It a Test Drive Today!

OVEREXCITED and UNDERTHOUGHT

CHIEF WARRANT OFFICER 2 SCOTT B. SHAFER
Nomad Troop, 4th Squadron, 3rd Armored Cavalry Regiment
Fort Hood, Texas

Dangling upside down over a pool, strapped to a litter and hanging by a belt — this wasn't a situation anyone would have imagined when we reserved the Leadership Reaction Course (LRC) for training.

The LRC can be a safety officer's risk assessment nightmare. Obstacles with old boards, water, half a rope and a time limit are just some of the factors every LRC contains. Let's face it; the course puts you under stress to complete a task you don't have the proper equipment to do. In situations like this, there is always a chance someone is going to get injured. Sure, we do risk assessments, develop and implement controls and so forth. However, on a course like that, it's impossible to cover all your bases. Murphy's Law always applies.

On this day, the obstacle was two platforms separated by a pool of 4-foot-deep water and connected by an elevated wire. The goal was to move a person on a litter across the wire from one side to the other. It seemed like a simple enough task for five combat veterans.

The Soldiers made the decision to strap their "injured" comrade to the litter to minimize movement and prevent further injury. After all, that's how we do it. Knowing that no one has the strength to hang from a wire and hold a litter with a person on it, they decided to use their belts. So, they took off their belts and strapped them to the litter and wire. The plan was to slide the Soldier and litter across the wire.

As a safety officer, I watched all this ingenuity happen before my eyes. I'd done the risk assessments, I had medics on hand and I believed in my guys. However, for a split second, I thought to myself, "What if the belts don't hold?" Then I looked at my belt and decided it was sturdy and had a good buckle, so it should hold, right? Wrong!

They might have held if one of them hadn't been a Velcro belt. How could these experienced Soldiers not realize a Velcro belt wasn't going to hold a 200-pound person? I believe it was the stress of the time limit that allowed them to overlook this detail. Well, halfway across, the Velcro gave way, leaving the injured Soldier dangling over the water while still strapped in the litter. Eventually, the weight became too much for the remaining belts to hold and the Soldier dropped head first into the drink.

The Soldier sank to the bottom of the pool and his partners jumped in to save him. Before they could even get their shoelaces wet, the Soldier popped out of the water and shouted, "Freedom!" Everyone had a good laugh and we continued training.

Lessons Learned

In the end, the events were completed without a single injury and everyone had a new war story to tell. Still, I couldn't help thinking, "What if this situation had gone wrong? What could have been done to prevent this close call?"

I could have reduced the risk by making the Soldiers stick to the plan. After all, what good is having a plan if you don't use it? For this obstacle, the Soldiers used unauthorized materials to construct their "zip line" litter transport. If they were made to stick to the materials provided, a Velcro belt would have not even been in the equation and the incident never would have happened.

There's a saying that goes something like, "A bad decision is better than no decision." That may not always be the case when it comes to safety. If these Soldiers had taken a moment to think their decision through, or the supervisors had stopped the training to correct their actions, they probably could have devised a better plan. Slowing down and using good judgment can complete a task faster with better results than making a rash decision and failing.

The bottom line is we need training and, sometimes, that training has risks. The team took a risk by using their belts, which weren't part of the authorized equipment to complete the task. Why did I let it go? I don't know and I can't go back and change it. However, I can share my story and maybe prevent it from happening again.«

BiG TROUBL

As I ruffled through a moldy logbook and found my frantic handwriting, the events of that day came back in a vivid rush of memories. It was a perfect fall morning. I was a relatively new UH-1 pilot in command (PC) of three months — just 11 months out of flight school — with about 500 helicopter flight hours under my belt. Not bad for a "butter bar" back then.

The Mission

Our mission was to fly an Air Force officer from a radar site on the West Coast to a new gunnery range and return. I elected to fly from the left seat since my pilot was a new warrant officer fresh out of flight school. We picked up our passenger and were on our way to the range, expecting an uneventful flight.

While the Air Force officer conducted his business at the new range, my pilot, crew chief and I waited around the Huey. Our weather update was "clear blue and 22" — great flying weather.

The Return Trip

The mission took longer than expected. We picked up our passenger and immediately departed the range at maximum range airspeed en route to the refueling point, which was close to an hour away. The refueler obviously wasn't pleased with our delayed arrival. However, he proceeded to top off our fuel bladder with cold gas and I rewarded him with the only thing I had, a stale Meal, Ready-to-Eat, or MRE.

By the time we departed refuel, we were two hours behind our originally scheduled flight plan. The fast-setting sun in front of us gradually hampered our vision, making it extremely difficult to navigate the terrain. (Reliable navigation equipment capable of working in this type of terrain was virtually unheard of in a table of organization and equipment unit at that time.)

Just One Thing After Another

Nightfall quickly approached. I desperately attempted to tune in the VHF omni-directional radio range — our only available navigation aid — at the

E AHEAD

ANONYMOUS

destination Air Force base. No such luck. Suddenly, a freezing-cold breeze swept through the cockpit, causing the windows to fog. Fortunately, our Huey had an excellent defogging system that corrected the problem within seconds.

We then realized we had just crossed through an unforecasted 20 F temperature inversion, which meant we were likely to hit trouble ahead. I immediately tried to contact flight following for a weather update. No reply. I tried all of the flight-following agencies for which I had frequencies. Nothing! Now my floor microphone was stuck in the transmit mode. When I loosened my shoulder harness and bent over to try to fix it, my kneeboard, along with my radio frequency cheat sheet, snapped off my leg and fell into the chin bubble between the pedals.

All the sudden, it sounded as if we'd been hit by a truckload of marbles as hail, sleet or large raindrops pounded against our windshield. I reached up to turn on our windshield wipers, but neither of them worked. I figured this was supposed to be my final wake-up call. One thing after another was happening as our once uneventful flight was becoming entirely too eventful.

I looked toward the western horizon and, with what natural illumination remained, noticed an ascending bed of ground radiation (or evaporation) fog combined with a descending overcast. It was as if we were flying directly into a tunnel. I told my pilot to initiate a right 180-degree turn and find a place to land. As we rolled out back to the east, total darkness surrounded us. The fog was quickly swallowing what few visual ground references we had.

I now realized we were in big trouble. With all the previous commotion, I knew we were lost and I was running out of ideas. I thought of all the times my commander, instructor pilots and safety officer had cautioned me, "Don't ever get into a situation where you are forced to go into instrument meteorological conditions (IMC)." Those words now pounded inside my head.

I instructed my pilot to circle to the right and remain clear of the surrounding clouds while I tried to radio approach control. After several attempts, I finally established contact and requested clearance for radar vectors to the precision approach radar (PAR). They asked if I was declaring an emergency. Frustrated and ignorant of my true situation, I responded, "Negative." Approach control gave us a transponder squawk and told us to maintain present position until positive radar identification was established.

Barely able to see the ground, my pilot continued circling to the right while I struggled helplessly through every instrument publication I had onboard. Without warning, I felt the Huey shudder and begin to sink toward the ground as my pilot unwittingly slowed to 15 knots. I yelled at him to increase power and keep the airspeed at or above 40 knots.

Our wait for air traffic control clearance seemed like an eternity. I couldn't help but think we were near "Chinook Valley" — a name given to the area by aviators after a CH-47 crew, trying to avoid IMC, got tangled in 350-foot-tall power lines, killing all onboard. I also knew we had to be just south of a known area of heavy wires that had already taken the lives of several Army aviators. Most of them either crashed into the mountains or were strung up by one of the many wires in that area while trying to maintain visual meteorological conditions.

Suddenly, I noticed our rotating beacon and position lights reflecting off the clouds. I reached up, turned off the lights and immediately saw a flashing red light as we passed within inches of a large smokestack. I grabbed the flight controls and began a climb while yelling out

instructions to my pilot. I then realized my floor microphone was still stuck, so everyone tuned to the approach control frequency was well aware of how I felt about the situation.

We were completely "in the soup" as I requested priority handling. Approach asked me again if I was declaring an emergency. This time, without hesitation, I acknowledged, "Affirmative!" They immediately responded with a heading and altitude to intercept the PAR. Then vertigo hit me like a ton of bricks.

The constant circling to the right gave me a serious case of spatial disorientation. I never in my life fought as hard as I did then against this powerful physiological effect. My brain was insisting I was in a hard left turn, while my attitude indicator was telling me we were straight and level.

I remember shaking my head from side to side, hoping to cage my inner ear. It didn't work. I kept yelling at myself, "Fly the instruments; rely on your instruments!" I swear I could hear my Initial Entry Rotary-Wing instrument instructor telling me, "Believe in your flight instruments and know how to use them because one of these days, they'll save your life." Sweat poured down my face despite the fact it was 65 F in the cockpit.

> "It's **AMAZING** how a relatively smooth **MISSION** can **RAPIDLY** and without warning **TURN** into a **DANGEROUS** situation."

I gradually began to overcome the vertigo and was able to focus on all the instruments. As the controller vectored us onto final approach, I started to calm down for the first time in almost two hours. I was totally committed to getting us out of this mess and even the rain dripping on the top of my helmet (from either the greenhouse or overhead vent) wasn't going to make me lose my concentration on this PAR. We heard a specialist from the flight-following agency trying to contact us. We ignored him, as we weren't sure which of our four radios he was calling on, and the preset channels weren't working correctly.

Almost Home

I took a deep breath and mentally prepared myself for the PAR. My attention was now devoted to the controller's instructions.

It was the darkest night I could ever remember. The rain continued to pound the windows and fuselage. I told my pilot to look outside and take the controls once he could see the runway. Just as he acknowledged the instructions, a bright orange light lit up the cockpit — a master caution! My stomach felt as though it had dropped through my lap and into the chin bubble, where my kneeboard still lay.

The pilot looked down at the caution panel lights and announced a 20-minute fuel light. The fuel gauge indicated about 200 pounds remaining. Up to this point, fuel had been the last thing on our minds. I now realized we didn't have enough fuel for a missed approach. Again, I asked approach for the current altimeter setting (barometric pressure) and convinced myself that, if necessary, I would descend below decision height.

Air traffic control said, "On course, on glide path." So far, this had been the best PAR I had ever flown — and it had to be. My pilot saw nothing as we descended from more than 50 feet above our decision height through fog below. The only thing I could do was slow to 30 knots while descending at 200 feet per minute.

Within seconds, I experienced the most beautiful sight I had ever seen. The big, bright, high-intensity runway lights glowed throughout the entire cockpit as they guided us onto the runway. This caused us to partially lose our night vision, but, at this point, we didn't care. We turned on the beacon, position and landing lights and, believe it or not, the pilot windshield wiper began to work as we headed to base operations. The fuel gauge indicated 100 pounds. "Gas hog," I thought to myself.

Back on the Ground

While we were shutting down, our passenger (frankly, I had almost forgotten we had a passenger) jumped out of the cargo door and thanked us a dozen times. He then sprinted to base operations. It was obvious he couldn't have cared less about not making it back to his original destination. I never saw him again.

As the rotor blades came to a stop perfectly parallel with the tail boom, our crew chief yelled out, "I owe you a six-pack of beer, sir." We all laughed off some emotion and stress. I then jumped out of my hot seat, hugged our Huey, kissed the ground and looked up into the black, stormy skies to thank whomever was watching over us.

Looking Back

It's amazing how a relatively smooth mission can rapidly and without warning turn into a dangerous situation. We can all learn from the events that can lead to a disaster. I wish I could have shared this story years ago, but, at that time, I was afraid my commander and standardization pilot would ground me forever. As a result, my pilot, crew chief and I swore this mission to secrecy and I didn't dare log the .6 hours of actual instrument time into the aircraft logbook.

Since that mission, I have accumulated an additional 4,000 military flight hours without a single incident. I have encountered several unforecasted inadvertent IMC situations in other military aircraft (mostly at night under night vision goggles), but I was always prepared with preplanned recovery procedures.

I've gone over the details of this mission a hundred times in my mind, trying to determine what I should have done better or differently. I don't think there is a specific school solution for this situation, but there are several points to ponder. The Army has implemented many different safety programs over the years that have obviously made a significant impact on our improving safety record.

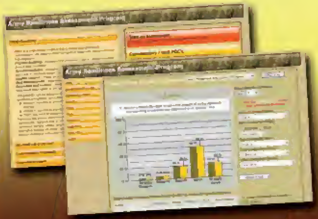
When this mission was flown, minimum crew rest policies were established but rarely enforced; blind cockpit procedures and mandatory synthetic flight training systems requirements were little to none; hood time was minimal; actual instrument flight was virtually unheard of for Army helicopter pilots; and navigation equipment was very limited. And there was no such thing as risk management, risk assessment, a hazard communication program, a cockpit or crew coordination program, a mission briefing officer or mission briefing forms. Yes, we've come a long way. I, for one, don't wish for the good old days one bit.«

Wouldn't you like to know if your unit is about to experience a mishap?

Wouldn't you like to prevent the loss of personnel and equipment?

Don't you want to protect your combat power?

ARAP is a Web-based initiative that provides battalion-level commanders with data on their formation's readiness posture.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The Salt Ma

On a breezy January morning, two friends and I set out to duck hunt in the salt marshes of the North Carolina coast. I never imagined this trip could be my last.

After driving more than an hour, we arrived at the Swan Quarter National Wildlife Refuge. From there, we took a 30-minute boat ride, anchored and completed the 300-yard walk to our hunting spot. After a couple of hours of watching hundreds of ducks — but firing very few shots — one of my friends and I decided to walk around and hunt birds that had landed elsewhere. I left my blind bag behind, carrying enough shells to hold me over so I could fill my limit.

About 4:30 p.m., I shot my last bird, which filled our bag limit of 18 ducks. When I went to pick him up, I stepped into a deep and rather soft spot of muck and fell head-first into the water. I was a little damp, but I didn't give it another thought. That step, however, started a chain of events that turned an awesome hunt into a life-threatening situation.

By now, we were nearly 600 yards away from our original location. About halfway back, I started to cramp and vomit. I had been punishing my body all day, walking on my knees the majority of the time to remain hidden from the ducks. Unfortunately, I neglected to keep myself hydrated — and now I was paying the price. From that point on, I had to stop frequently. The last 300 yards felt like an eternity and darkness was fast approaching.

By the time we arrived back at our original location, my tank was on empty. The cramps were incredibly painful and I didn't have anywhere dry I could lie down and massage them out. We were also standing in the muck, which made stretching impossible. I sat down for a few minutes, drank a soda and ate a few peanut butter crackers, but then the frequency of my vomiting increased. We still had another 300 yards to go to get out of this watery labyrinth and back to the boat, so I finished a second soda and started to push through the darkness. None of our cell phones had reception and my hunting partners knew they had to get me out fast.

By the time we got to the boat, the temperature had

arsh

CHIEF WARRANT OFFICER 2 COREY HAZELWOOD
A Company, 1st Battalion, 130th Aviation Regiment
North Carolina Army National Guard
Morrisville, N.C.

dropped to about 19 F and the wind was nearly 30 knots. I got on the boat and tried to warm myself, but to no avail. The cramps were excruciating and I was still vomiting. To make matters worse, the spray from the brackish water turned the outside of my chest waders into a sheet of ice. My gloves were also wet from one of many falls, and the fleece inside was frozen.

High winds blowing in our face slowed our return, turning a 30-minute boat ride into nearly a two-hour ordeal. When we finally arrived at the boat ramp, I was starting to show signs of hypothermia. I was cramping so badly I had to be physically lifted off the boat and into the truck. My hunting buddies helped me out of my wet gear and into fresh clothes from the dry bag we stored in the truck. Now that I was finally out of the elements and in the heated truck, I started to warm up.

This hunting trip nearly cost me my life, and the next few days showed it. The severity of my condition became apparent the following day when I had to be lifted out of bed. I couldn't even stand on my own for three days.

We made many errors in judgment and planning. Although I was in good physical shape (I had just returned from a year-long deployment in Iraq, where I spent the majority of my off-duty time conditioning in the gym), I had not hydrated for almost six hours while I was hunting. I had brought something to drink, but it did me no good sitting 600 yards away. We also failed to take the dry bag with us and ensure we had some means of communication in case of an emergency, even though we knew the conditions were going to be hazardous.

This experience taught me the importance of planning and the dangers associated with blatantly disregarding the controls put in place. Although our planning was thorough, we failed to implement our controls to reduce the hazards. This trip changed us from being young, daring sportsmen who thought they could handle anything to methodical and, at times, anal-retentive waterfowl hunters. Planning and properly implementing controls to mitigate risk could have eliminated the problems we faced. I'm just thankful I was able to learn from my experience and live to tell about it.«

I Almost Shot O

Back in 1994, I was a new private assigned to my first unit at Fort Hood, Texas. I was away from home and didn't get back much during the holidays. In an effort to get me out of the barracks and away from the usual trouble young Soldiers get into, my squad leader invited me to go hunting. I told him I'd never hunted before, but I had done plenty of fishing and camping when I was younger. Wanting to try something new, I accepted his offer.

Since we were at Fort Hood, I was required to attend a mandatory hunter safety course before I could hunt on post. I figured it was a good idea, so I went in with an open mind and actually learned a few things about hunting. A few weeks later, we scheduled a Saturday morning to go out via range control to shoot us a few deer.

I didn't own a rifle, so my squad leader loaned me one — an old Czech sniper rifle that shot .223 rounds. He explained the safety, how to use the scope and how to safely load and unload the rifle. After a short HMMWV ride to the north-side training areas, I was told where to find my assigned treestand.

As I climbed into the treestand, I was really excited about the opportunity to shoot my first deer. I finished setting up my thermos of coffee and the food I brought to snack on. Once I scoped out the area for deer, I decided to load my rifle and put it on safe so I was

> "I **THOUGHT** I was too **SMART** and **RESPONSIBLE** for something like that to **HAPPEN.**"

ff My Face!

CHIEF WARRANT OFFICER 3 JAY A. BACHMAN
B Company, 2nd Battalion, 159th Regiment (Attack Reconnaissance)
Illesheim, Germany

ready to take the shot as soon as a monster buck presented himself. Well, a few hours passed and I still hadn't seen anything but an armadillo (which I actually considered taking a shot at to kill the boredom). I must have loaded and unloaded the rifle three or four times to break the monotony of sitting there by myself with nobody to talk to.

Then I did it! No, I didn't take down my first trophy deer on my first day of hunting. I must have dozed off with my finger in the trigger guard of a loaded gun. You can guess what happened next. I actually shot a round about three inches from my face and put a bullet hole in the bill of my hat and the top of the treestand. That woke me up for sure! I thought I was too smart and responsible for something like that to happen. I then wondered if my death would have been ruled a suicide or hunting accident. Heck, I was 19 years old and knew I had too much to live for.

About an hour later, the HMMWV returned to pick me up. All the guys asked if I'd shot a deer. They'd heard the gunshot from their treestands and thought I'd bagged one. I was too embarrassed to tell them that I'd almost killed myself by being incredibly stupid, so I just said I had a poor shot and missed a small deer. Until now, I've never told anyone about the day I almost shot off my face.«

TEN COMMANDMENTS OF FIREARMS SAFETY

Accidents can be greatly reduced by following the Ten Commandments of Firearms Safety.

1. **Always keep the barrel pointed in a safe direction.**
2. **Treat every firearm with the respect you give a loaded weapon.**
3. **Be sure of your target and what is in front of it and beyond it.**
4. **Keep your finger outside the trigger guard until you are ready to shoot.**
5. **Check your barrel for obstructions and only carry the proper ammunition for your weapon.**
6. **Unload all firearms when not in use.**
7. **Point a firearm only at something you intend to shoot. Avoid all horseplay with a gun.**
8. **Don't run, jump or climb with a loaded firearm. Never climb a fence or jump a ditch with a loaded weapon. Never pull a weapon toward you by the barrel.**
9. **Store firearms and ammunition separately and safely. Store them in a secured location away from the reach of children.**
10. **Never consume alcoholic beverages before or while shooting.**

In an effort to reduce off-duty accidental firearms incidents, the U.S. Army Combat Readiness/Safety Center has developed a new interactive online tool called Firearms Safety Techniques. The site is available for Soldiers, Families and Civilians at https://safety.army.mil. Give it a shot today!

THE BITTER

DR. HARRIS R. LIEBERMAN AND CHRISTINA E. CARVEY
Military Nutrition Division
U.S. Army Research Institute of Environmental Medicine
Natick, Mass.

A lot of Soldiers take dietary supplements. Big pills, little pills, green pills, blue pills, bars, powders and drinks — you name it and you or your buddies have probably taken it. "So what?" you ask. After all, AAFES, supermarkets and drug stores couldn't sell supplements if they didn't work or weren't mostly safe, right? Guess again. They can sell any supplement they want — whether it works or is safe.

What You Need to Know

What the stores, magazines, packaging and Internet won't tell you is dietary supplements are barely regulated by the government. Companies can say things like, "Stimulates fat burning" or "Speeds recovery and enhances performance," but they never have to prove these claims are true. Of course, they're not supposed to make false or misleading statements, and the government can, in theory, fine them and make them stop — but only if they catch them.

Do They Work? Are They Safe?

In reality, most supplements don't work as promised, and a few are downright dangerous. We know you don't want to hear that and will probably ignore what doctors, nurses and scientists say. We also know you want to get every possible advantage so you can work and play harder, run farther, bench press more, have more energy and max out your physical training (PT) test.

We don't blame you. After all, who wouldn't want those things? Especially when the ads and packaging tell us we can get stronger and faster simply by taking a pill or drinking a protein shake. Well, remember that old saying — if it sounds too good to be true then it probably is? Bingo!

Let's Get Specific

What about protein powders? A lot of Soldiers take protein powders. If you want to take them, too, we're not going to stop you. But we will tell you that using protein powders after a workout provides way more protein than your

body needs for recovery. Instead of using the extra protein for building or repairing muscles, your body just burns it up. With the outrageous cost of some of those products, it's almost like you're burning money!

Drinking one or two cups of plain or chocolate milk (cow or soy) after a workout gives you all the protein and carbohydrates you need for recovery and costs a lot less. So you decide; it's your money. What about for the rest of the day? If you're ripped — or you're trying to get there — do you need more protein than a couch potato? Sure. But you still don't need a supplement. There's plenty of protein to meet your needs in the average American diet.

What about the vitamins and minerals all your buddies take? Sorry, but most healthy young Soldiers don't need those either. Some women may need extra calcium or iron. However, extra iron can actually hurt some men.

If you still insist on taking supplements, be especially careful of those found on the Internet. Some contain impurities and extra ingredients that aren't always listed on the label or website, including drugs that can cause you to fail your Army drug test or seriously harm your body. Right now, you could be taking these things without even realizing it.

What is Smart and Safe?

Carbohydrate beverages are good for helping you run farther and faster. But don't overdo it; these drinks have a lot of calories. If you don't have enough energy, try getting more sleep. Also, don't smoke. In addition to potentially giving you cancer and wrecking your lungs, smoking hurts your athletic performance. It'll slow you down when you run and decrease the rate at which you build muscle.

We wish we could give you a list of great dietary supplements to help you be healthier, have more energy, do your job better or perform better on the PT test, but we can't. Just remember, we don't get paid extra if you do or don't take dietary supplements. So you decide who to believe — us or the folks who get richer when you fork over your hard-earned bucks! «

Do You Like Us?

Check out the U.S. Army Combat Readiness/Safety Center's Facebook page for the most recent news stories, videos and photos by the Army's premier safety professionals.

ARMY SAFE IS ARMY STRONG

Speak Up

CHIEF WARRANT OFFICER 3 RICHARD GRIFFIN
63rd Aviation Group
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Frankfort, Ky.

Some years ago, I learned the value of speaking up for what's right, regardless the consequences. Early in my career as an Army aviator, I was told to close my pie hole and open my ears so I might learn something. I was careful not to judge other pilots' mistakes harshly because someday I might do something less than brilliant. Whether we admit it, we've all done something stupid.

My attitude changed when I had the unfortunate circumstance of being in the field with a unit that suffered a catastrophic Class A accident with multiple fatalities. The accident involved a single aircraft with a full crew and several troops onboard. Only one passenger and the pilot survived.

The subsequent investigation determined the primary contributing cause of the accident was "hot dogging" the aircraft. The pilot in command (PC) was leaving the Army soon and wanted to give the Soldiers in the back a ride they'd never forget. Unfortunately, they never got the chance. The aircraft's radar track showed it making radical heading changes, or bank angles, and traveling at an excessive speed before it struck a tree and crashed.

The devastating impact that tragic and unnecessary accident had on the unit and the deceased Soldiers' Families was fresh in my mind when I took my next assignment a couple of years later. I was at the Joint Readiness Training Center (JRTC) in Fort Polk, La., working as an observer/controller for a sister company from our battalion. My duties included riding in the aircraft jump seat with a radio to monitor the aircraft in flight, ensuring compliance with JRTC rules of engagement.

One day, I was told to fly in the jump seat with a PC I knew well and considered a friend. His career was rocky from the start. He'd had his PC orders pulled several times and was passed over twice for promotion to chief warrant officer three. He also had a bad reputation for being stubborn and refusing to follow orders, qualities that directly contributed to his problems at work. Despite

“I’ll **NEVER** know for **SURE** if I did the **RIGHT THING** that day or **PREVENTED** an **ACCIDENT** from **HAPPENING** sometime **LATER.**”

these setbacks, he finally reached retirement, dropped his paperwork and began counting down his last few months in uniform.

The pilot (PI) that day was the polar opposite of the PC. A staff captain from the battalion, the PI had a meek personality and little flight experience. The PC sensed this and began teasing and intimidating the captain as soon as we got in the air. He was going to show him how to really fly a Black Hawk.

Keeping his promise, the PC, who was on the controls, became increasingly reckless. He was flying low and fast and banking the aircraft excessively, so much so that I had to grab my seat and hold on for the ride. We were behind on the map and flying fast on the confined JRTC real estate. At one point, we overflew a running aircraft at less than 100 feet. He quickly became autocratic and ignored complaints from the crew. He just laughed us off as a bunch of whiners.

After the flight, a crew chief went to the standardization pilot (SP) to complain about the PC. The SP informally interviewed all the crewmembers, and the PI and one crew chief corroborated the other crew chief’s statement, but with less forceful language than they’d used in flight. The SP then came to me and asked point blank if I thought the PC had been unsafe. I hated to dime out my friend because doing so would likely mean the end of his flying and our friendship.

I decided, however, the consequences of not speaking up were much greater and could be permanent — not just for the PC, but for the crew and passengers on his aircraft. I admitted I thought he was unsafe and, as I predicted, the PC was grounded and never flew in the Army again. He confronted me later about what I’d said to the SP. I told him the truth, but he didn’t agree and we haven’t spoken since.

I’ll never know for sure if I did the right thing that day or prevented an accident from happening sometime later. Maybe nothing ever would’ve happened, but I felt the potential cost of not speaking up was too high. We have a small margin of error in our line of work anyway, and no one should ever be allowed to court death under the guise of fun.«

The Six P's

STEVE KURTIAK
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If you've ever screwed up as a Soldier, chances are some crusty NCO has "educated" you on the pitfalls of poor planning.

It Was One of Those Days …

I'd just finished loading my dirt bike onto my trailer when I noticed it was cooler than the weather forecaster predicted. That was no big surprise. I'd often wondered how much those guys got paid to guess at the weather every day. Anyway, the temperature was in the high 20s when I got to the track, signed up, unloaded the bike and began to gear up for practice. It was pretty chilly, so I wore a sweatshirt beneath my chest/back protector. What I didn't take into account was my hands. I didn't have cold-weather gloves (motocross is a warm-weather sport, right?). I figured I would just "suck it up" and ride with the gloves I had.

An Unexpected Delay

I finished the first practice run and rode back toward my truck. As I did, my wife was pointing at the half-flat left-rear tire. "No big deal," I thought, "I'll just change it." I usually packed a couple of plywood boards for my bike stand. Where were they? Then I remembered, "Crap — they're in my nice, warm garage next to my air compressor!"

A friend lent us a 4x4, which did the trick, and I got out a socket wrench to break the torque on the wheel nuts. Yep, they'd been "gorilla" torqued. I was able to bust a couple of them loose, but still had four to go. To help me, I convinced my wife to jump up and down on the handle while I held the extended socket wrench against the nut. She was so trusting, and this unapproved and ill-advised method worked (this time). Before I put on the spare, I checked the tire pressure. Yep — the tire hadn't been serviced. Fortunately, the guy to our left had an air compressor. Within a few minutes, the tire was on the truck.

Moto 1 — Into Racing — Almost

I got on the track, picked my spot at the starting gate and left the engine running. The starter held up the one-minute board and I grabbed a handful of throttle to clean the carb. Instantly, the motor died! I vigorously prodded the kick starter — but no luck. The plug was fouled, so I ran 100 yards back to the toolbox to grab a plug and wrench (at least I remembered to pack them) and lumbered back to the bike.

While I swapped the plugs, my wife held the bike. She was saying something about me not being prepared, and I was wishing I had a video of her jumping on that wrench handle for YouTube. When I finished, she had a pocket full of tools and I joined the race — two laps down!

Moto 2 — The Curse Continues …

I picked my starting spot and waited for the moto to begin. The gate dropped and I launched from my starting position. I banged a couple of gears and could see two other riders in my peripheral vision. "Good hole shot," I thought as I steered around a two-bike crash in the first turn, rounded the second and entered the third turn. I stuffed the front wheel into the berm, trying to square the turn, but, instead, buried the front tire in the soft sand. After a short, painful trip over the bars, my left shoulder, head and trapped pinky finger stopped any further forward travel. By the time I was free, I found myself in the same place as during the first moto — last!

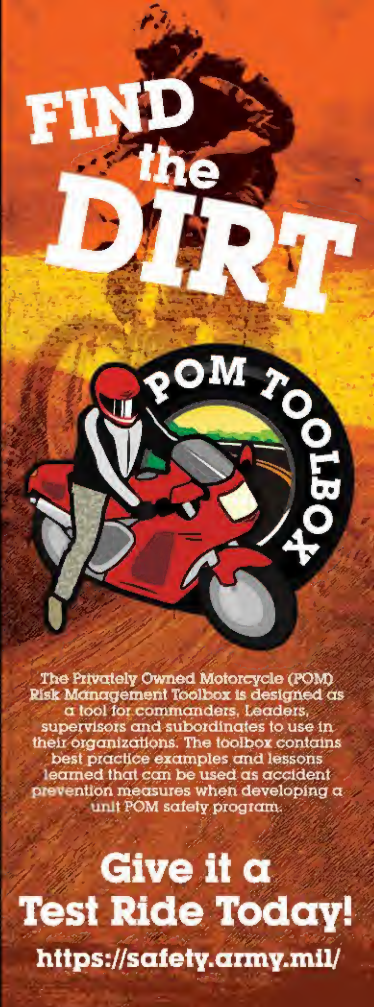
It Pays to be Prepared

This was the first race of the winter series and I approached it with a half-hearted attempt. I checked and started the bike the day before the race, but didn't pull the spark plug for a reading. I checked to make sure I had all my gear, but didn't consider the weather conditions. My hands got cold during the practice, making it difficult for me to operate the clutch, front brake and throttle. I had a warmer pair of gloves, but didn't pack them.

I didn't have all of the tools and equipment I usually take to the track. If I had, changing the truck tire would have definitely been easier. Unfortunately, having to change the truck tire caused me to miss the second practice session, which left me "guessing" at some parts of the track. A second practice session would have allowed me to commit more of the track to memory, something that is critical when it comes to jumps. A third-gear jump taken in second gear can make for a bad day.

As I sat there considering what happened, my mind drifted back to my old platoon sergeant at Fort Lewis, Wash. What was it he used to say to me? "Six P's, Kurtiak, six P's! Prior planning prevents piss-poor performance!"

There's no expiration date on my old sergeant's advice. Being properly prepared is the most important task you have whether you're gearing up to ride a bike or fight a battle.«



The Privately Owned Motorcycle (POM) Risk Management Toolbox is designed as a tool for commanders, Leaders, supervisors and subordinates to use in their organizations. The toolbox contains best practice examples and lessons learned that can be used as accident prevention measures when developing a unit POM safety program.

Give it a Test Ride Today!

Plan for the Unexpected

MASTER SGT. NATHAN YORK
300th Military Police Brigade
U.S. Army Reserve
Inkster, Mich.

The mission was to haul fuel from Al Kisik, Iraq, to the Kurdish city of Dahuk and conduct refueling operations for the 1st Motorized Transportation Regiment (MTR). This called for three U.S. M1025 converted gun trucks, two Iraqi army fuelers and four 7-ton cargo trucks to travel about 60 miles. The convoy was set to return that same afternoon along the same route with an additional 15 vehicles. One oversight on the return mission, however, would tarnish an otherwise successful movement.

Al Kisik is a small town nestled between Mosul and Tal Afar and has become the site where Iraqi military forces are trained and based to support sustainment and stability operations. Among these newly formed units stands the 3rd MTR. For the 3rd MTR — which was still in training and struggling with the growing pains of leadership development, equipment acquisition and Soldiers learning the most basic combat skills — this was its first real-world mission.

The pre-convoy briefing and preparation began at 0600, and the convoy rolled out the front gate just after sun-up. The ride to Dahuk went smoothly and, at this point, it appeared the planning was a complete success. Immediately following the refueling operation, NCOs and Iraqi officers began forming the Soldiers and vehicles for the return trip. The Iraqi leaders then organized the march order and gave pre-convoy checks and briefings. However, a few problems were left unchecked.

The size of the convoy, number of inexperienced drivers and unknown mechanical condition of the vehicles were not addressed in the pre-convoy checks and briefings. About 30 miles into the return march to Al Kisik, the convoy experienced its first mechanical failure — followed by another and then another. The Iraqi soldiers struggled to recover the vehicles as they broke down. At the same time, Iraqi leaders fought to control communication as the remainder of the convoy continued ahead, leaving drivers and broken vehicles along a 15-mile stretch of highway.

Eventually, all the recovery equipment was expended, but vehicles continued to fail. As a result, the return road march lasted four hours longer than planned. Fortunately, no lives were lost and injuries were limited to smashed fingers and minor cuts.

Lessons Learned

What caused a solid mission to go so unexpectedly wrong? Leaders failed to identify experienced drivers or conduct thorough pre-convoy checks and briefings on the expanded convoy. They also failed to ensure there were an adequate number of recovery vehicles accompanying the convoy should vehicles break down. Additionally, Iraqi junior leadership failed to control the convoy and communications. As a result, radio traffic quickly became cluttered with each breakdown.

There are several measures that can be taken to make convoy missions more successful, including:

- Pair experienced drivers with inexperienced co-drivers to use manpower more effectively.
- Provide radio communication training to reduce the chatter on the net.
- Tailor pre-convoy checks and briefings specifically for each and every convoy. Don't merely restate previous briefings and checklists.
- Plan to have the correct recovery equipment in the convoy — and in sufficient amounts — to recover possible losses.
- Ensure the unit maintenance plan accounts for extended mission times and vehicles are in proper working order before departure.

Ultimately, the mission was accomplished with all vehicles recovered. The lessons learned by the Soldiers and Leaders of the 3rd MTR that night proved invaluable as the unit began accepting missions to support U.S. and Iraqi forces throughout northern Iraq.«

DON'T MOVE THAT MAT

NATHANIEL PARADY
Joint Program Office - Mine Resistant Ambush Protected Vehicle
Stafford, Va.

Some Soldiers in Afghanistan may be jeopardizing their safety by removing an important piece of protective equipment from the latest variant of the Mine Resistant Ambush Protected (MRAP) vehicle. The Joint Program Office for MRAP has received reports that Soldiers are sometimes removing the blast-mitigating floor coverings from the MRAP All-Terrain Vehicle (M-ATV) in an attempt to make space inside the crew compartment for equipment or for more leg room.

In an effort to stop this practice, a Safety of Use Message was released to units in the field urging Soldiers to leave the floor coverings in place. In vehicle-level blast testing, the coverings have proven to reduce the risk of lower leg fractures by absorbing blast waves and lessening the pressure transmitted into the body. Removing the floor coverings can reduce a crewmember's ability to survive a blast.

The M-ATV was developed to provide Soldiers with enhanced off-road capability for the mountainous terrain of Afghanistan and has many safety and survivability features that assist them in performing their missions safely. In addition to the M-ATV, the blast-mitigating floor mats are used in Cougar MRAP vehicles. Consideration is also being given into adding the coverings in other variants of MRAP vehicles.«

THE BACHEL PARTY

CHIEF WARRANT OFFICER 3 WILLIAM BUSH
1st Battalion, 291st Aviation Regiment
Fort Hood, Texas

LOR

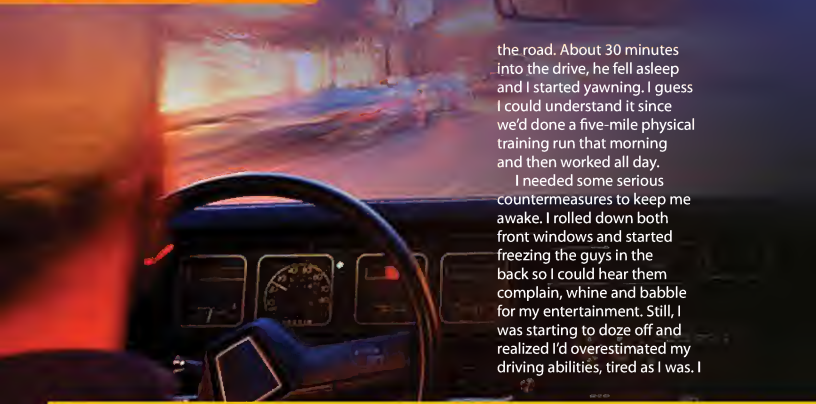
There is nothing quite like giving a friend a final send-off before he ties the knot and enters married life. Back in 2003, when I was an enlisted Soldier stationed at Fort Hood, a buddy was about to get married. We weren't going to let that happen without one last bang-up party.

We got together and decided to take him to Austin after work that evening. It was a Friday (he was due to get married Sunday) and our platoon sergeant rented a 12-passenger van so we could all ride together. Having listened to my buddies brag about how much they were going to drink and party, I volunteered to be the designated driver. I wanted to make sure we all got back safely.

The platoon sergeant showed up about 7:30 that evening with the van and began picking up everyone. He saved me for last, since I lived closest to the highway entrance. Once I boarded the van, my designated driver duties began — especially since the guys in the back had already started partying. With 15 of us in the van, the back end swayed like a drunken sailor and nearly bottomed out with every bump. I gripped the steering wheel firmly, all the while wondering if the van could handle the weight.

I pulled into a gas station and everyone piled out. You should have seen the looks the other customers gave us. They were probably wondering how many people we'd managed to cram into that van. After hitting the bathroom, several of my friends bought more beverages before climbing back into the van. It was party time again, and the van's rear end bobbed and swayed as we drove toward Austin. When we got there, we had a blast. I monitored the other guys, making sure none of them got the bachelor into trouble.

It was about 4 a.m. when we decided it was time to head back to Killeen. Everyone else had passed out, so I rolled down my window to help me stay awake during the drive. The platoon sergeant was up front with me to ensure we made it home safely and had another set of eyes on



the road. About 30 minutes into the drive, he fell asleep and I started yawning. I guess I could understand it since we'd done a five-mile physical training run that morning and then worked all day.

I needed some serious countermeasures to keep me awake. I rolled down both front windows and started freezing the guys in the back so I could hear them complain, whine and babble for my entertainment. Still, I was starting to doze off and realized I'd overestimated my driving abilities, tired as I was. I

DROWSY DRIVERS

Driving exhausted is one way to increase your risks on the highway — and don't count on being lucky. According to the National Safety Council (NSC), after the sun has gone down, you're more than three times as likely to have a fatigue-related fatal accident. And you're not the only problem out there. According to the NSC, 60 percent of drivers admitted to falling asleep while driving on interstate-type highways.

Who is at the greatest risk? According to the NSC, third-shift workers and people who have long daily drives, unrecognized sleep disorders or are prescribed medication with sedatives are the most likely to have an accident.

So, how do you know if you're in danger? Watch for the following symptoms:

- **Eyes closing or going out of focus**
- **Persistent yawning**
- **Irritability, restlessness and impatience**
- **Wandering or disconnected thoughts**
- **Inability to remember driving the last few miles**
- **Drifting between lanes or onto shoulders**
- **Abnormal speed, tailgating or failure to obey traffic signs**
- **Back tension, burning eyes, shallow breathing or inattentiveness**

Here are some tips to help you finish your trip at home instead of the hospital.

- **Maintain a regular sleep schedule that allows adequate rest.**
- **When the signs of fatigue begin to show, get off the**

took a long blink and was startled by the sound of the tires running over the chatter strip alongside the road. I woke up and saw we were headed toward the guardrail. As I steered back into my lane, I heard a comment from the rear of the van asking, "Are we there yet?"

Somehow, we made it safely back to Killeen. I struggled to stay awake as I dropped off my friends. Once that was done, I still had a four-minute drive to my house. It felt like the longest four minutes I'd ever spent behind the wheel.

My near-miss that night taught me a valuable lesson. If you're a designated driver, you have to do more than just stay sober — you also have to stay awake and alert. After all, it won't matter to the guardrail whether you're drunk or asleep. Either way, it can put your lights out — forever.«

road. Take a short nap in a well-lit area. Do not simply stop on the side of the road.

- **Avoid driving between midnight and 6 a.m.**

When planning long trips:

- **Share driving responsibilities with a companion.**
- **Begin the trip early in the day.**
- **Keep the temperature cool in the car.**
- **Stop every 100 miles or two hours to get out of the car and walk around, as exercise helps to combat fatigue.**
- **Stop for light meals and snacks.**
- **Drive with your head up, shoulders back and legs flexed at about a 45-degree angle.**

TRAVEL RISK
TRiPS
PLANNING SYSTEM

ARE YOU AT RISK?

Find out before hitting the road. Use the easy, online TRiPS tool. Log on today!

SAFE WINTER

For those civilian and military agencies that operate in cold-weather environments, winter adds dangers we must consider before launching.

Winter brings a combination of high moisture content and cold temperatures that pose a threat of engine, airframe and blade icing. During day and night operations, snow and ice become significant threats in many ways. Ice on a ramp, or ice or snow on a helipad during a rapid spool up or spool down, can cause the helicopter to yaw. Snow can lead to a whiteout during takeoff and landing. During night vision goggle (NVG) operations, a gradual increase in snowfall can lead to the pilot losing situational awareness and inadvertently flying the aircraft into terrain, obstacles or water. The pilot may also enter inadvertent instrument meteorological conditions (IIMC), resulting in loss of aircraft control.

OPERATIONS

CMDR. DAN BITTON
Multijurisdictional Law Enforcement Aviation Coalition
Winthrop Harbor, Ill.

An awareness of these conditions, along with proper training, mission planning and crew coordination, may prevent flight crews from getting caught in these traps and, thereby, prevent accidents. The bad news is accidents involving loss of situational awareness and the resultant controlled flight into terrain (CFIT) are usually fatal. The good news is these accidents are typically avoidable.

At the risk of boring you with physics, the basics a pilot and all crewmembers should know about icing begins with the fact that icing can occur in conditions of high humidity when the ambient temperature is at or below zero C. Note, this does not require you to be in the clouds. Icing may also occur at higher temperatures during times of falling barometric pressure; so, for safety sake, let's just say that with temperatures at or below 5 C, high humidity, temperature and dew point being nearly even, we must be aware of the dangers of ice accumulation.

The primary effect of ice on a helicopter's blades is drag and loss of lift. During temperatures between zero and minus 3 C, ice will form on the leading edge from the root outward toward the tip, covering about 70 percent of the blade, as kinetic energy or the heat from the blade tip inboard typically inhibits ice accumulation in that area. This kinetic energy benefit decreases with temperatures below minus 3 C. Ice accumulating on a blade will cause vibration — from very slight to significant, depending on the type of blade and the rate of accumulation. The increase in the torque required to sustain level flight is an indication of significant accumulation. If in icing conditions, it is helpful to know that the faster the helicopter is traveling, the faster ice accumulates. Any indication of ice on helicopters, such as vibration, should be cause for a "land-as-soon-as-possible" decision.

Icing conditions also pose a danger to turbine engines. While many of our helicopters have engine anti-ice systems, which are meant for light icing, ice can accumulate at the throat near the first compressor stage. This in itself will not cause the engine to fail or flameout; it's the breaking of this ice and its being ingested into the engine that can cause damage and possible flameout. Engine manufacturers have conducted testing and found that as little as 350cc of water — at one time — into the engine can cause a flameout. Aircraft with particle separators are less susceptible to these engine induction hazards.

Perhaps a more common danger in winter is snow. Snow has caused many helicopter accidents during takeoff, level flight and landings due to whiteout conditions and loss of situational awareness. Before departing from a snow-covered ramp or helipad, aircrews must consider whiteout conditions.

In fresh snow, pulling just enough pitch to become light on the landing gear can cause the snow to blow away from the aircraft. Depending on the helicopter model, I teach our flight crews to use the chin bubble as a reference point, as it seems ground contact can often be seen through this window during takeoff and landing even when a snow cloud is obscuring the primary windows.

Off-site landings and takeoffs pose a problem of their own. In addition to the whiteout described above, landing in snow-covered fields can become a dangerous situation, as the snow may be masking uneven terrain or hazardous obstructions.

Similarly, landing on frozen snow can be dangerous, as well as the weight of the aircraft breaking through the frozen snow after landing. In both cases, the pilot in command (PC) may not be ready for slope situations that may exceed the helicopter's limitations. After landing in a field and sitting for some time, when departing, a skid may freeze to the ground and a dynamic rollover situation may occur. The best prevention during off-airport landings is to have a ground support officer assist in assessing the landing area and, in all cases, land slowly and treat each snow-covered landing and takeoff as you would a slope landing.

> "Any **INDICATION** of **ICE** on **HELICOPTERS**, such as vibration, should be **CAUSE** for a "**LAND-AS-SOON-AS-POSSIBLE**" decision."

The increased use of NVG requires us to be ever vigilant of light snow. While flying with NVG during light snowfall, the snow causes a slight increase in the graininess or amount of "visual static" in the goggles, thus allowing us to see through light snow. As we fly in remote country areas with few ambient light sources and during times of low moon illumination, we can quickly become IIMC when the snowfall increases, especially when viewed unaided. Crew coordination becomes critical, and any unaided crewmember should advise the flight crew of diminishing visibility.

Whiteout situations, low visibility, CFIT, IIMC and resultant loss of control deserve our attention, as these preventable accidents continue to occur. When faced with IIMC, a situation we constantly train for, it is important to note that accidents occur when attempting a turn, as a further loss of situational awareness often happens. Having this knowledge and obstructions permitting, climb straight and advise air traffic control (ATC) that you have an IIMC emergency. Let the co-pilot tune the radios.

As the PC, just concentrate on straight and level flight.

Today, many pilots have never heard of the no-gyro and/or radar surveillance approach that controllers used to provide. While a senior controller recently advised me that very few ATC facilities still train for or provide true antenna structure registration (ASR) approaches, they are able to help and advise you of turns, climbs, descents, etc., by issuing commands such as "turn — stop turn," "climb — stop climb" and, therefore, vector onto and down a localizer approach during IMC. Check with your local ATC for services available in your area. If a military base is located nearby, they most likely can provide you with a true ASR approach. You just listen and fly to their commands.

Again, good judgment, early on, is the best prevention. If you are in diminishing visibility and ceiling, land as soon as possible to any parking lot, field, etc. — being ever so mindful of obstructions. During these landings, slow is good and slower is better.

Many of us in law enforcement have been flying with NVG for some time, so it's important to remember that the moon phase, azimuth and relative position are all important factors influencing image quality and operational capability. Once the moon is less than 20 percent above the horizon, the atmosphere begins dispersing more lunar light, resulting in less image detail. It is interesting to note that most military-recorded accidents while operating on NVG occurred when the angle of the moon was less than 30 degrees above the horizon. Lunar levels can be obtained at the National Oceanic and Atmospheric Administration website at www.NOAA.gov. I learned a lot of good stuff from Scott Baxter when he pioneered the Bell NVG initial class and, for all those able, I highly recommend this initial and recurrent training.

Mission planning, crew coordination and plain old good judgment remain the best manner in which to prevent being in dangerous and deadly situations. Good crew coordination involves flight leadership, two-way communications and the ability to maintain situational awareness. Oftentimes, as flight crews become more proficient with NVG operations, overconfidence and complacency can compromise safety of flight. Risk assessment and management must be continuous from the initial preflight briefing to the postflight debrief.«

Editor's note: Adapted by permission from Helicopter Association International and ROTOR magazine.

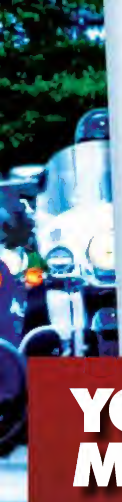
Editor's note: It can be hard to measure the actual success of a safety program because it is impossible to know how many accidents were prevented. However, every so often, someone who "dodged the bullet" because of their safety training shares that personal experience. Here are a couple of examples involving motorcycle riders.

Nuts and Bolts: Saved by My Training — Twice

I am a sergeant in the Army stationed at Fort Stewart, Ga. I attended the Motorcycle Safety Foundation (MSF) Basic *RiderCourse* training in March 2010. All I can say is a big "thank you" to my instructors, Bobbi and Merland. The training I received in that class has paid off tenfold.

After I attended the class, I received my motorcycle rider's permit through the state of Georgia and bought a new 2010 Honda Fury in April. When I went to the Honda dealer on a Saturday afternoon to pick it up, it had just finished raining and the roads were still wet.

It was about 5 p.m. when I left the dealership, riding in heavy traffic. I was about five minutes into my ride when a lady in a black Suburban pulled out in front of me from a driveway hidden by landscaping and trees. I was traveling at the speed limit of 45 mph and the distance between us was approximately 25 to 30 meters. Without thinking, I immediately put my MSF training to use and avoided disaster by maintaining control of my motorcycle and stopping within a meter of the Suburban's



bumper. It all happened so fast that, without the MSF training, I would not have made it home on my new bike that day.

The second incident happened on a sunny day right after work as I was riding in heavy traffic. I was going 40 mph when a young man ran across the street from my left, crossing both oncoming lanes and the middle turning lane before running in front of me. When he saw me, he froze like a deer caught in the headlights. Upon applying the front and back brakes, my front tire locked up and caused me to momentarily lose control. I then released the brakes, regained control and stopped about a foot away from him.

Once again, without my MSF training, I know I would not have regained control of my bike and disaster would have ensued. To those involved with my MSF training, especially my instructors, thank you for stressing the importance of proper braking, remaining vigilant and planning for any scenario while riding. You're doing great things for the Soldiers at Fort Stewart and Hunter Army Airfield.«

Sgt. Richard Welshans
Fort Stewart, Ga.

YOU SAVED MY LIFE!

The following message was sent to Scott Steuerwald, Korea/Japan lead for Cape Fox Concentric Methods, LLC, by a motorcycle rider stationed at Osan Air Base.

I want to thank you for saving my life. I was returning from work on my Harley-Davidson FXCW Rocker and had just left the Air Force Operations Center gate at Osan Air Base and turned east on a four-lane road. As I approached an intersection, I saw a black sedan coming from my right. I immediately moved into the inside lane in case he decided to do anything stupid. As I continued to watch the sedan, I noticed the driver had his cell phone in front of his face. He had no intention of stopping, yielding or even noticing me as he turned left across the three lanes.

In a split second, I faced the decision to either hit him on the side and flip over his car or do an evasive maneuver and take the impact on the side of my bike. Because I knew I could slow to almost a dead stop by the time I reached the middle of his front fender, I decided to slide the bike in front of him. Mind you, he had still not seen me at this point. He saw me and hit the brakes as I began to go around his hood.

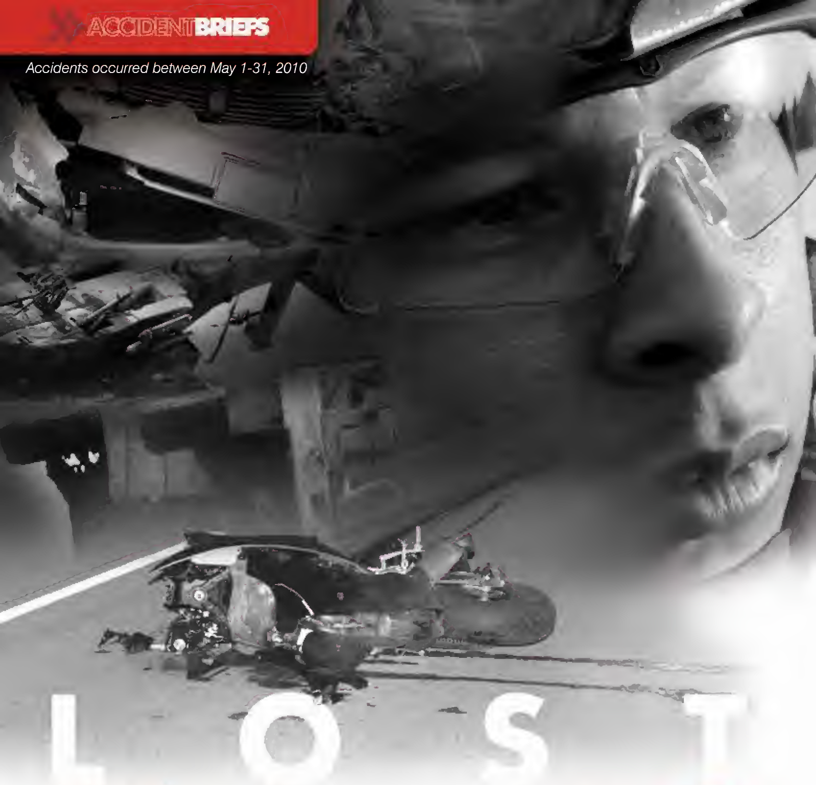
I went through the scenario hundreds of times while I was in the hospital getting a titanium rod put into my right tibia. I made the right decision — smashing into to the side of the sedan could have been much more tragic.

Thank you for teaching me how to evaluate risk. Thank you for encouraging me to practice our evasive maneuvers (which my friends and I do regularly). Thank you for impressing upon us the importance of wearing all our safety equipment. Your guidance was one of the primary factors that kept my accident from being much, much worse.«

In your debt,
Tech. Sgt. Shannon Sutton
Osan Air Base

ACCIDENT BRIEFS

Accidents occurred between May 1-31, 2010



AVIATION

AH-64D

CLASS A

- The aircraft's main rotor system contacted the tarmac during taxi to parking. The main rotor blade separated from the aircraft and struck the forward fuselage, killing the co-pilot gunner and injuring the pilot in command.

CLASS B

- The aircraft was lead in a flight of two when it contacted trees. Postflight inspection revealed damage to the tail strut, stabilator, wing store, 30 mm cannon and sheet metal.

UAS

RQ-7B

CLASS B

- The unmanned aircraft (UA) experienced engine failure while in flight. The recovery chute deployed and the system was recovered.

CLASS C

- The UA experienced a telemetry readout failure upon launch. The aircraft operator initiated a climb and activated the recovery chute. The UA sustained damage.

- The UA experienced an AIR DATA SENSOR FAIL shortly after launch, then descended to ground impact. A postcrash fire ensued and the system was destroyed.

GROUND

ACV

CLASS B

- A Soldier's arm was amputated after the Mine Resistant Ambush Protected (MRAP) vehicle he was riding in overturned. The driver, TC and another Soldier were also injured.

- A local national embedded employee suffered the partial amputation of four fingers when he caught them in the gunner's hatch turret ring on an MRAP.

Explosive/Fire

CLASS A

- A Soldier died six weeks after he was injured in a construction fire. The Soldier was laying linoleum flooring in a dining facility when the fire started. Two other Soldiers were injured.

Personnel Injury

CLASS A

- A Soldier died after he was accidentally shot in the head with his own weapon at a social gathering at another Soldier's home.

- A Soldier drowned in a lake when he attempted to swim from a boat to retrieve a can floating on the water. The Soldier was with a group of three other Soldiers who had rented the boat from a local marina.

DRIVING

POV

CLASS A

- A Soldier driving with two other Soldiers as passengers rear-ended a dump truck while going through a construction zone. The Soldier/driver was killed and both passengers injured.

- A Soldier was killed when he attempted to avoid a slower-moving vehicle in his lane, ran off the road, struck an embankment and hit a tree.

- A Civilian with a learner's permit was driving with a Soldier as a passenger when she struck a vehicle she was passing, entered the oncoming lane and collided with a tractor-trailer. Both she and the Soldier were killed.

ARMY AVIATION LOSSES

Fiscal 2010

as of August 4, 2010

	Class A/Fatalities
ATTACK	2/1
RECON	4/4
UTILITY	6/6
CARGO	3/0
TRAINING	0/0
FIXED-WING	2/0
UAS	5/0
TOTAL	22/11

ARMY GROUND LOSSES

Fiscal 2010

as of August 4, 2010

	Class A/Fatalities
AMV	14/6
ACV	10/9
PERSONNEL INJURY includes weapons-handling accidents	24/22
FIRE/ EXPLOSIVE	4/3
PROPERTY DAMAGE	1/0
TOTAL	53/40

- A Soldier was killed while riding in a car driven by another Soldier. The driver lost control on loose gravel and the vehicle overturned and struck an embankment. The driver survived.
- Police believe a Soldier was street racing when his car struck another vehicle, crashed and caught fire. The Soldier died at the scene.
- A Soldier was killed when his vehicle collided with a truck as he was exiting a parking lot into a four-lane road.
- A Soldier was driving his SUV late at night when he lost control in a turn and overturned while trying to correct. The SUV overturned three times, during which he was ejected and killed.

POM

CLASS A

- A Soldier was killed when his sport bike ran off the road, went through a ditch and hit a tree. The rider was speeding and not wearing his personal protective equipment (PPE).
- A Soldier was in a group of 10 riders motorcycling during off-duty hours when he entered a curve at too great a speed, panicked and crashed into a guardrail. The Soldier was airlifted to a local hospital, where he later died. The Soldier had received Army-mandated rider training and was wearing his helmet and PPE.
- A Soldier died after he hit a patch of gravel while riding his newly purchased sport bike, lost control and was thrown against an embankment. The Soldier was wearing his PPE but hadn't attended motorcycle training.
- A Soldier on rest and recreation leave was riding his cruiser motorcycle when he drifted to the side of the road and struck a curb. The Soldier was thrown from his bike and killed.
- A Soldier was killed when he lost control of his motorcycle while riding through an S-curve and struck a guardrail.
- A Soldier departed the armory on his motorcycle, lost control in a turn and crashed. He was not wearing a helmet and died at a local hospital.

Pedestrian

CLASS A

- A Soldier was walking to sick call when she stepped off the sidewalk into a parking lot and was struck by another Soldier driving a POV. She was transported for medical treatment, but later died.

ATV

- A Soldier was killed when he struck a tree while riding his all-terrain vehicle and was ejected. The Soldier was not wearing PPE.

POV DRIVING LOSSES

Fiscal 2010

as of August 4, 2010

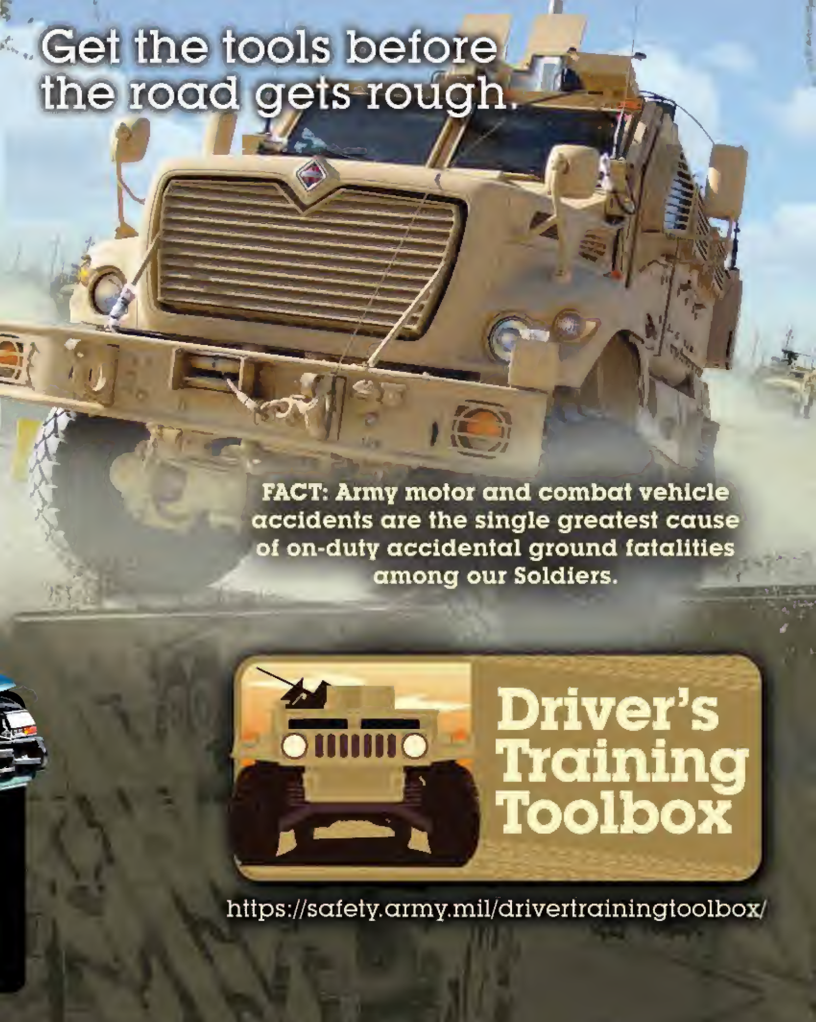
	Class A/Fatalities
CAR	34/35
SUV/JEEP	9/10
TRUCK	4/4
MOTORCYCLE	29/26
PEDESTRIAN	9/10
OTHER*	2/2

*Includes vans and ATVs

87

TOTAL DEATHS

Fiscal 2009: 90 3 Year average: 98

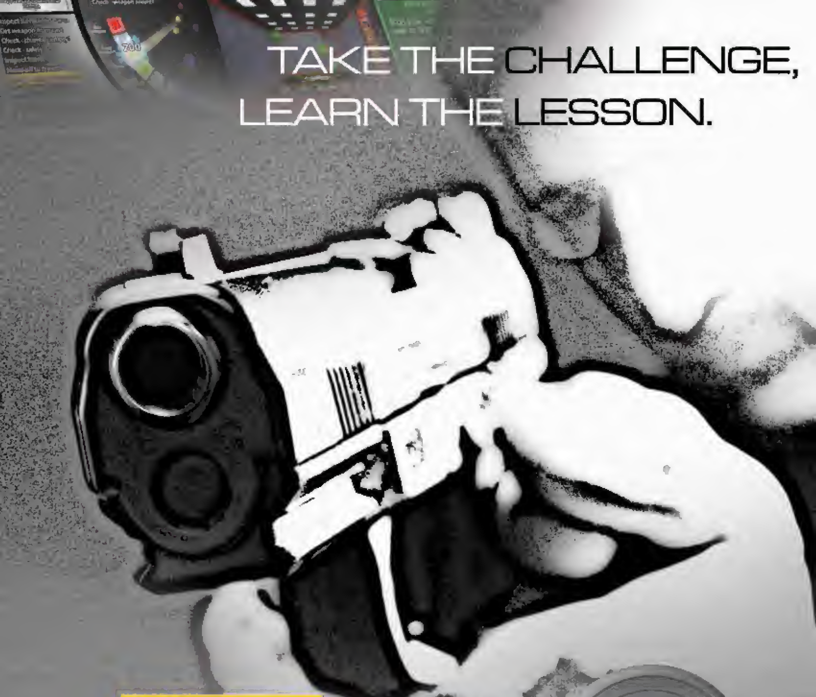


Get the tools before the road gets rough.

FACT: Army motor and combat vehicle accidents are the single greatest cause of on-duty accidental ground fatalities among our Soldiers.

Driver's Training Toolbox

https://safety.army.mil/drivertrainingtoolbox/



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